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The role of corporate social responsibility in strong sustainability

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Abstract

The aim of this paper is to analyze to what extent corporate social responsibility (CSR) contributes to strong sustainability, i.e. to what extent the use of natural resources and the environment is possible, given the current level of economic activity. We therefore examine responsibilities that corporations should take in order to fulfil the requirements of strong sustainability. Based on current CSR practices and theory as well as on businesses motivations regarding environmental and social investments, we will introduce the role of corporations in influencing consumption patterns. Furthermore, we will attempt to answer to what extent responsible corporate behaviour is determined by the current economic system.

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1. Weak and strong sustainability

The current burden on the planet's natural resources can result in global climate change, the growth of desert regions, and the homogenization of flora and fauna. There is an old argument among economists about the limits these problems set in light of the future of humanity (Homer-Dixon, 2004). The economic optimists (who think that there are no limits to population, economy, and consumption) and pessimists (according to whom the size of population and global economy is already too high for earth to provide resources for) represent the two opposite aspects.

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Sustainable development has become one of the most popular topics for both politicians and economists in recent years. By the year 2004, almost 90% of the US-American Fortune 500 companies already had explicit corporate social responsibility (CSR) initiatives (Kotler and Lee, 2004; Lichtenstein et al., 2004). There is currently a strong debate on sustainable development, although there is not yet a generally accepted definition of the concept. The most "popular" definition is the one from the Brundtland Commission, according to which the core of sustainable development is to satisfy the needs of the present generations in such a way that it does not lower the chance of future generations to satisfy theirs (Jöst, 1996). Accordingly, the economic activity of the present is likely to narrow the chances of future generations by ruining the global ecosystem on which human society and the economy are based. According to Jöst (1996), the main question to solve is: "To what extent is the use of natural resources and the environment possible, if our economy is to exist in the very long run?" (p. 78). Based on the Brundtland concept, the question could also be reformulated as: To what extent is the use of natural resources and the environment possible, if our economy is to exist on at least the present level in the very long run?

The International Institute for Sustainable Development, Deloitte & Touche and the World Business Council for Sustainable Development (WBCSD) define sustainable development for business enterprises as "[. . .] adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing the human and natural resources that will be needed in the future" (Labuschagne and Brent, 2005, p. 160). Existing literature generally agrees on three dimensions of sustainability: (1) economic, (2) social, and (3) environmental. A sustainable business has to take into account "the interests of future generations, biodiversity, animal protection, human rights, life cycle impacts, and principles like equity, accountability, transparency, openness, education and learning, and local action and scale" (van Kleef and Roome, 2007, p. 41).

Summarizing, it can be stated that the ecological aspect of sustainability includes being responsible for future generations by sustaining a certain level of natural resources, thereby providing essential functions to human society. According to Ekins and Simon (2003), these functions are as follows:

- Source function: delivery of natural resources to the economy (energy carriers, agricultural land, or biological resources).
- Sink function: refers to the possibility of disposing waste.
- Life support function: a set of functions performed by land, water and air essential to sustaining life.
- Human health and welfare function: includes services that maintain health and contribute to human well-being.

When discussing sustainable development, most economists use the capital theory approach (Harte, 1995). This approach assumes that we can keep the level of welfare at a minimum on a constant level, i.e. providing similar opportunities for future generations by providing them with at least the same amount of capital the present generation owns. The total capital consists of natural and man-made (economic and social) capital. Sustainable development can be divided into weak and strong sustainability. Weak sustainability means that even if the quantity of natural capital is decreasing by creating man-made capital, total capital can be maintained, which would be enough to fulfil the criteria of sustainability. Strong sustainability on the other hand is less permissive, saying that natural capital cannot (or only to a limited extent) be substituted by man-made capital

and may suffer irreversible harm, so that is necessary to maintain not only the aggregate but also the amount of available natural capital (Neumayer, 1999; Pearce, 1988).

Although there are many opportunities for mitigating resource depletion and environmental degradation through the substitution of manufactured capital, economic production is still a work process that uses energy to transform materials into goods and services. Producing a manufactured capital substitute requires the input(s) of natural capital, and the multi-functional nature of ecosystems in sustaining socioeconomic development makes it difficult to substitute their life support with manufactured capital. It seems that opportunities for substitutions are being more limited than many authors assume (Ecological Economics, 2003). Based on current knowledge, broader ecosystem services (e.g. protection against harmful cosmic influences, regulation of the local and global climate including the hydrological cycle, water catchment and groundwater recharge, prevention of soil erosion and sediment control, and maintenance of biological/genetic diversity) simply cannot be substituted by any other form of capital (Gustafsson, 1998; Cleveland and Ruth, 1997).

Due to these contemporary limits to substitution of natural resources by man-made capital and the scientific uncertainty concerning the necessary minimum level of natural resources needed to secure the aforementioned vital services to human society (Ekins, 2003), CSR will be analyzed from the aspect of strong sustainability in this article.

2. Requirements of strong ecological sustainability

The aforementioned interpretations of sustainability are also important from the corporate point of view, since business corporations are the main actors in an economy which transforms natural capital into man-made capital. Based on the two interpretations, there are also two approaches used to measure corporate contributions to sustainability (Figge and Hahn, 2004; Callens and Tyteca, 1999): relative and absolute measures. The first approach investigates efficiency, while the second focuses on effectiveness (i.e. absolute resource use). The relative measure compares the value created by the company with the resources used or the harm caused to the environment. Eco-efficiency in this respect means producing the same amount of products while consuming less environmental input. The absolute measure focuses on the value added by the company, defined as benefits minus internal and external costs.

There are several concepts concerning the requirements for enterprises for strong sustainability, such as the Concept of Integrated Chain Management (DeGroene and Hermans, 1998). Its criteria include:

(1) use of non-renewable resources,
(2) stimulation of the use of sustainable energy,
(3) keeping of the balance in the process of use and production of renewable resources, and
(4) keeping renewable and non-renewable resources as long as possible in the material cycles, unless this is not environmentally desirable.

Other criteria can be found in the Natural Step Concept, which is based on four natural systems principles (Ehrenfeld, 1997):

(1) crucial substances must not systematically increase in nature,
(2) industrial products must not systematically increase in nature,

(3) the productivity and diversity of the natural system must not be allowed to deteriorate, and
(4) fair and efficient use of energy and other resources.

Other authors (Wallner, 1999; van Weenen, 1995) emphasize that a real sustainable ecocycle economy needs energy that is not connected to the process/product. According to this view, only solar energy would be appropriate for sustainability.

Authors exploring the links between business and ecological sustainability emphasize resource and energy conservation, the role of non-renewables, and the reduction of waste (Heeres et al., 2004; Ehrenfeld, 1997; Wallner, 1999; van Weenen, 1995; Reijnders, 2000). These principles serve as guidelines for strong sustainability and are reminiscent of Daly and Cobb (1990), who established three often-cited implications for the sustainable use of natural resources (Gerbens-Leenes et al., 2003; Petschow et al., 1998):

(1) Renewable resources should not be exploited at a greater rate than their regeneration level.
(2) Non-renewable resources should not be depleted at a greater rate than the development rate of renewable substitutes.
(3) The absorption and regeneration capacity of the natural environment should not be exceeded.

Despite these aforementioned business guidelines for sustainable resource use, even in the light of capital theory, it is difficult to operationalize and measure strong sustainability in practice on the micro (e.g. company) level. It is still very difficult for individual companies to decide the direction that should be taken in looking for a solution, since no solid guidelines have been formulated regarding the ecological limits within which companies ought to operate (DeGroene and Hermans, 1998). It is doubtful that strong sustainability can be measured on the level of business organizations, since practical concepts so far "fail to address what conditions must be met, what factors need to be overcome, and what characteristics actually determine an ecologically sustainable organization" (Handfield et al., 2002, p. 71). Gerbens-Leenes et al. (2003) also emphasize that it is not yet possible to measure (strong) sustainability from a system perspective, since an integrated measuring method concerning the three aspects (economic, social, and environmental) has not yet been developed. Furthermore, environmental reporting of companies is poorly developed, widely accepted standards for sustainability are not yet available, and companies usually address their environmental effects only on a local level, thereby using a large number of indicators. As a result, the generated information is incompatible, does not address the sustainability issue as a whole, or provides hardly any additional knowledge on the environmental sustainability of a production system. To complicate matters, companies differ even in the same business sector, outsourcing is becoming more and more common, and the type and number of processes differ per company. Thus, indicators vary among companies and generate incompatible information, which makes it virtually impossible to assess strong sustainability on a company level.

A further reason for the deficiencies in measurement is the scientific uncertainty concerning natural resources. According to Ekins (2003), it is not possible to identify particular elements of critical natural capital due to the complexity of natural systems. Scientific knowledge on this topic is still regarded as uncertain and incomplete.

3. The limits of technologically based concepts

Researchers dealing with corporate sustainability emphasize the role of more effective and less natural resource-intensive (both concerning energy and materials) production methods and

systems. Although it is more than only eco-efficiency, which is basically at the centre of business attention (see, e.g. the official documents of the World Business Council on Sustainable Development),[1] whether technological optimization indeed contributes to resource and energy conservation can be doubted. The recognized problem with this approach is the so-called rebound effect that can be observed on both the micro and macro levels (Dyllick and Hockerts, 2002). On the micro (company) level, e.g. several companies manage to reduce the quantity of material use per product unit, but the total use of raw material increases because output grows more rapidly than efficiency. Human beings basically use improved technological efficiency to increase comfort and improve their quality of life, not to reduce resource consumption. Examples from Norway show that energy consumption per household has increased when energy conservation has been introduced in private houses. Greater efficiency improved comfort through larger living areas (50% increase on average in private houses in Norway between 1973 and 1987), higher room temperature, and increased use of electrical equipment. In vehicle development, the improvements in fuel efficiency achieved over the last 10 years have over-effected the increased use of cars, and the general increase in the number of cars in society (Hanssen, 1999).

The Ecological Footprint (EF) measure shows that the rebound effect also appears at the macro level (Wackernagel and Rees, 2001). EF is a resource management tool that measures how much land and water area a human population requires, under prevailing technology, to produce the resources it consumes and to absorb its waste. Capturing the effects of the economic system on the ecological system both at the input and output sides and thus the resource requirements of present consumption patterns under prevailing technology, we consider EF to be the best current tool to capture the dynamics of the effects of the economic system on the natural environment. Basically, growing EF shows us that a society consumes an increasing amount of natural resources and depletes these resources to an ever-greater extent.

Analyzing the measure on a national level, we find that the EF of developed countries—which are the strongholds of CSR—is still increasing. The global EF was 2.5 times higher in 2001 than in 1961, despite the improvements in technology and eco-efficiency. It has grown continuously since the 1960s, and has exceeded the sustainable level since the 1980s. Furthermore, the global EF of humanity grew more than 700% in the last 40 years (WWF, 2004). Also, higher GDPs, which usually mean higher social and environmental consumer expectations, higher levels of CSR and EMS (environmental managements systems) activities, and higher eco-efficiency through better technology, result in higher EF. Although developed countries have introduced EMS and CSR for decades, and there are more and more environmentally and socially conscious consumers and companies in these countries, EF growth has not stopped (Bagliani et al., 2006).

Nearly the same is seen with social issues. Poverty and income inequities within and among societies have also grown significantly over the last decades, both within and among societies and also in the developed world. The trickle-down effect does not seem to be justified by present practice (Stiglitz, 2003). The present continuous worldwide economic growth does not help to solve environmental and social problems, and instead seems to deepen them (Daly and Cobb, 1990; Meadows et al., 2004).

All in all, it seems that the environmental optimization of processes and products will not be enough to achieve the overall objective of sustainable development (Vollenbroek, 2002).

[1] Although the eco-efficiency definition of the WBCSD admits that there is an absolute carrying capacity for Earth (Barrett and Scott, 2001), the organization considers eco-efficiency to be the only environmental responsibility of business (WBCSD, 1996a,b, 1997, 1998, 2006).

4. A consumption-based view

Concerning the existence of the rebound effect, many authors suggest that sustainability demands more than increased eco-efficiency by technological development. It also requires a change in consumption patterns. Northern societies in particular have been characterized by an enormous throughput of resources and energy for many years: 20% of the world population uses 80% of the material and energy resources annually extracted and exploited. Considering these huge differences in the level of consumption, it is clear that first of all the Northern societies can significantly contribute to the reduction of global natural resource use, e.g. by reducing their own consumption level. Several authors (Pataki, 2000; Csutora and Kerekes, 2004) emphasize that the reduction of consumption will be necessary to achieve sustainability, since the main reasons for environmental damages are the wasteful consumption patterns of Northern consumers and the increasing push towards new Southern markets (Buday-Sántha, 2002). Doubt can be raised about whether an increased income level of Southern societies can positively contribute to sustainability in these countries (an argument is made by some that the direct burden on renewable natural resources such as land or rainforests would decrease), as it may also have an (indirect) negative impact on sustainability due to increasing consumption. Nonetheless, reduced consumption in Northern societies seems to be essential to reach ecological sustainability.

5. The role of business in consumption patterns

Natural resource depletion is the result of the activity of three different, closely connected, mutually influencing main spheres: government, the business sector, and citizens and their organizations (NGOs). Although governmental power is at the centre of media attention, it is moreover the business sector which could potentially play the most important role in making a move toward greater sustainability (Hutchinson, 1996; Buday-Sántha, 2002; van Kleef and Roome, 2007; Michaelis, 2003). According to Bertrand Collomb, the president of WBCSD, only the business sector can find solutions for sustainable development because governments do not produce goods (Interviews, 2005).

According to one view, decisions regarding reducing consumption appear on the level of private individuals (Hanssen, 1999). However, if we consider the society as a subsystem of the natural environment and the economy as a subsystem of society, we encounter a more complex situation. Analyzing the relations among the different subsystems, we find that while the relationship between the economy and the society subsystems is mutually direct, a certain asymmetry can be observed between the natural environment and the economy. Primarily, economic activity influences the natural environment directly by taking inputs from and generating outputs into the environment (other interventions into natural processes occur here as well). The other effect is indirect: Actors in the economy may also influence the natural environment in a less evident way through society, i.e. by influencing consumption patterns. From a capital theory point of view, social capital can influence future natural capital amounts in two ways: (1) by influencing the ability to improve eco-efficiency and (2) by determining attitudes toward consumption and natural capital so that natural capital preservation becomes a priority in the future.

As Michaelis (2003) emphasizes, there are three different types of business-related change which might contribute to sustainable consumption:

(1) Development of new technologies and practices.
(2) Changes in the economic and legal incentives that shape both production and consumption.

(3) Changes in the values and discourses that shape the culture of business, government, the media, and civil society.

Accordingly—besides government and citizens—the business sector is indeed also responsible for current consumption patterns, and plays an important role in influencing consumption in a more or less sustainable direction.

6. The concept of CSR

As mentioned, doubt can be raised on whether the weak concept of sustainability (including eco-efficiency) is in and of itself enough for resource conservation. Strong sustainability seems to also demand sustainable consumption patterns, and business (as probably the most powerful sphere in society) also has its role in contributing to it. We therefore will subsequently examine how the business sector can contribute to sustainable consumption. Our statements are formed on the basis of current CSR theory and practices as well as on business motivations regarding sustainability investments.

In Europe, the main factors fostering CSR are "expectations from citizens, consumers, public authorities and investors in the context of globalization and large scale industrial change, investment decisions considering social interest, the increased concern about the damage caused by economic activity to the environment, and transparency of business activities brought about by the media and modern information and communication technologies" (Commission, 2001, p. 5). In summary, both the demand for and opportunities of monitoring companies' behaviour have increased.

The core idea of the CSR concept is that the business sector should play a deeper (non-economic) role in society than only producing goods and making profits. This includes society- and environmentally driven actions, meaning that the business sector is supposed to go beyond its profit-oriented commercial activities and increase the well-being of the community, thereby making the world a better place (Robins, 2005).

An overall picture on current CSR practices is offered by Rondinelli and Berry's (2000) study on the environmental reports of different multinationals (MNCs). They divide CSR activities into external and internal practices. External practices are for example incentives for employees and managers collaborating on environmental improvement projects; philanthropic activities that support community, national, and international efforts to improve environmental conditions; and strategic alliances between MNCs and environmental and public interest groups to solve crucial environmental problems. Internal practices include enhanced regulatory compliance to reduce the corporations' negative environmental impacts of hazardous emissions in the communities in which they are located; adoption of pollution prevention and clean manufacturing practices that prevent pollution before it occurs; redesign of products and processes to achieve more beneficial environmental impacts for customers and communitiesm materials reduction; recycling and re-use; and resource conservation. Although external practices are more "visual", they usually only reflect a small part of MNCs' environmental management activities, and do not have the strongest potential impacts on contributing to sustainable development. Moreover, internal practices represent a far larger portion of the total amount most companies annually spend on environmental management activities.

Both external and internal practices contribute to sustainable ecological development both directly (e.g. external resource conservation activities) and indirectly (saving natural resources by resource and energy input reduction through improved eco-efficiency). Nevertheless, both

also have deficiencies regarding strong sustainability. While external practices are often local and represent only a very small part of MNCs' profits (Rondinelli and Berry, 2000), the problem with internal practices is the aforementioned rebound effect.

CSR practices can also be categorized on the basis of corporate interests. Spitzek (2005) divides them into three main groups:

(1) Must-responsibilities (consumer needs and law requirements, neglecting these would endanger immediate survival).
(2) Should-responsibilities (these are vital for long term survival, based on the expectations of societies, not manifested in low, neglecting them can cause boycott, disinvestment).
(3) Can-responsibilities (not expected by the society, not pressed by the law or the market, no sanction applies when neglected, can help better reputation).

Another categorization from Rondinelli and Berry (2000) divides CSR into four levels:

(1) Commercial self-interest: Adhering to all laws and regulations and selecting those activities that benefit stakeholders and communities directly contributes to profitability and competitiveness.
(2) Expanded self-interest with immediate benefits: Undertaking activities that go beyond normal business concerns to benefit stakeholders and communities in ways that also provide measurable short- and medium-term benefits to the company.
(3) Expanded self-interest with long-term benefits: Supporting community activities, such as education and training, that will have important impacts on continuing business success.
(4) Promoting the common good: Supporting or participating in activities that improve conditions in the community, or for stakeholders with no expectation of direct tangible benefits to the company.

Nevertheless, these categorizations fail to address the question of consumption and the role of the businesses sector in influencing it into a sustainable direction.[2] Based on businesses' motivations in connection with environmental and social investments, the reason for companies not addressing such a question becomes clear. Taking a look at the empirical research dealing with the motivation of firms for implementing environmental and social investments, we find that they are indeed motivated by business reasons. Researchers seem to agree that both business and non-business (ethical) aspects appear due to the implementation of CSR measures, but that environmental and social investments are mainly business driven (Granek and Hassanali, 2005; Zhu and Sarkis, 2006; Drechsler, 2005; Fryxell et al., 2004; Fryxell and Szeto, 2002; Kwon et al., 2002; Hall, 2000; Rondinelli and Berry, 2000; DeGroene and Hermans, 1998). According to Máté Kriza, the director of the Hungarian Business Council for Sustainable Development, the main motivating factor of the business sector is profit, and the management of a sustainable company regards environmental and social investments as a business opportunity (Interviews, 2005). Bertrand Collomb, the president of WBSCD, also sees these tools as necessary for successful business (Interviews, 2005).

[2] As far as we know, there is only one company telling its consumers to reduce their consumption and to only buy the necessary products in order to get closer to sustainable consumption patterns: Patagonia's Buy Less, But Buy Better (McSpirit, 1998).

Since CSR and EMS are mostly only applied as long as they contribute to economic success (profit, long-term competitiveness, image, etc.), most companies only meet their must- and should-responsibilities due to government regulations or consumer expectations. Also, companies manage risk and reputation through CSR rather than tackling the more difficult issues. Most companies' CSR actions aim to provide community benefits through increased sales, and do not deal with larger questions such as their impacts on communities through the ways they do business (Doane, 2005). Indeed, the business community in general interprets "sustainable consumption" as a higher consumption of sustainable products. It subsumes sustainable consumption within sustainable production or resource efficiency (Michaelis, 2003), which has serious limits in achieving sustainability goals.

Besides admitting that companies also have to be economically sustainable, we think that companies have made Friedman's view of CSR their own, which says that 'the business of business is business' (Interviews, 2005). Companies regard social and environmental development beyond business interests as the responsibility of government. Companies are in business in order to earn profits and create wealth (for their owners), so their perceptions of how to achieve sustainable development will always be influenced by their overall business strategies (Rondinelli and Berry, 2000). These business strategies have been influenced by e.g. the rapid spread of the public share ownership model in recent years (Michaelis, 2003). This seems to make more companies increasingly focused on financial performance and less on social and environmental standards in order to satisfy shareholder expectations, often at the expense of employees and even customers.

On the other hand, although there is an imbalance of power between companies and the public, it is not clear "how far individual businesses can shape patterns of consumption, or to what extent they are prisoners of the system" (Michaelis, 2003, p. 915). The answer to this question could be a bit of both: Large consumer product corporations in particular can certainly influence consumption, but individuals within these corporations may well experience themselves as "prisoners of the system". Companies mostly play by the rules of the business culture they operate in, i.e. success for the 'fittest' companies, and failure for the unfit.

7. Conclusion

CSR is gaining more importance in today's business life, and its different definitions emphasize its contribution to sustainability. However, internal CSR practices, where most of the CSR resources are spent, mainly focus on relative sustainability and eco-efficiency, while external practices, although concentrating on absolute sustainability, still represent a very low rate of business resources, and mostly only focus on the local level.

Because of scientific uncertainty, the limits of substitutability of natural resources with man-made capital, and the rebound effect, it is doubtful that such CSR activities effectively contribute to the conservation of natural resources and their vital services. According to several authors (Pataki, 2000; Csutora and Kerekes, 2004), a change in Northern consumption patterns would also be necessary to achieve sustainability goals.

Since CSR practices are mainly motivated by business reasons, companies fail to address larger questions such as e.g. their impacts on communities through the ways they do business, including how they influence consumption patterns. However, it is not clear how far individual businesses are actually able to influence consumption, and corporate behaviour is to a high extent determined by the rules of the current economic system.

The present economic system makes it difficult for companies to address the aforementioned broader questions. The topic of green consumption is a good example of how the controversial

environment of business nevertheless attempts to create responsible actors. According to various previous research, Western consumers are becoming increasingly "green" and socially conscious in their mind (Mastny, 2004; Vágási, 2000; Németh, 1999; Pakainé Kováts and Herczeg, 1999; Borsi, 1997; Soler, 1996). Despite this, firms that are actually ethical usually capture less than 1% of the overall market (Doane, 2005), and the growth of GDP and income are at the centre of public attention. These latter facts show that consumers are still not necessarily environmentally conscious in their activities and consumption (Doane, 2005; Buday-Sántha, 2002).

Concerning these circumstances, companies have to meet two often contradictory requirements: (1) selling at low prices and (2) being environmentally and socially conscious. Since—as the example of green consumption shows—the first one seems to be stronger, companies are tempted to externalize. This is obviously contradictory to the well-being of societies. However, if a socially responsible company does not lower its prices, it will most likely be outrun by its competitors (Atkins, 2006).

Externalizing less and thereby taking more responsibility on the other hand means lower competitiveness due to higher costs and prices. A similar logic can be applied to sustainable consumption. If a responsible company tries to persuade its customers to consume less (or only the necessary amount) of its products, and its competitors act contrarily, the company may suffer a disadvantage in global competition, e.g. by reduced relative economies of scale and higher prices. Again, a possibly unsustainable activity is reinforced by the present form of the market and consumer decisions.

Summarizing our thoughts, we can say that among today's market circumstances, businesses do not seem to be able to find solutions for sustainable development themselves. Reaching the goal of sustainability requires more than CSR and eco-efficiency. It needs the active participation and cooperation of governments, businesses, and citizens in order to set sustainable consumption as a common goal of societies, and to reach an agreement on its conditions. But such an agreement does also have to involve quantity beside quality, and each sphere of society has its duty in contributing to it.

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